United States Patent [19]	[11] Patent Number: 4,925,602
Hill et al.	[45] Date of Patent: May 15, 1990
[54] METHOD FOR IMPROVING THE	3,726,079 4/1973 Feild et al 57/155
CRIMPING OF POLYOLEFIN FILTER TOW	3,739,053 6/1973 Yazawa 264/154
	3,756,484 9/1973 Guenther 225/97
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Walter A. Nichols, Richmond, Va.	3,801,252 4/1974 Waterhouse 425/304
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[21] Appl. No.: 231,148	3,927,957 12/1975 Chill et al
	3,949,454 4/1976 Irwin
[22] Filed: Aug. 10, 1988	3,985,933 10/1976 Mehta et al
[51] Int. CL ⁵ D01D 5/22; D01D 5/42	4,129,632 12/1978 Olson et al
[52] U.S. Cl	4.133.087 1/1979 Li 28/257
264/147; 264/168; 264/563; 264/DIG. 47	4,133,088 1/1979 Hikobe 264/DIG. 47
[58] Field of Search 264/DIG. 47, 563, 25,	4.134.951 1/1979 Dow et al
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2,914,810 12/1959 Robinson et al 19/66	1260957 1/1972 United Kingdom
3,336,174 8/1967 Dyer et al 264/DIG. 47	1339496 12/1973 United Kingdom
3,398,441 8/1986 Adachi et al 264/DIG. 47	Primary Examiner—James Lowe
3,494,522 2/1970 Kim et al	•
3,495,752 2/1970 Kim et al	Attorney, Agent, or Firm—Jeffrey H. Ingerman
3,496,260 2/1970 Guenther et al	[57] ABSTRACT
3,500,518 3/1970 Stanley et al	
3,500,627 3/1970 Kim 57/140	A method is provided for heating fibrillated polyolefin
3,526,349 9/1970 Moro	film prior to crimping, to improve the crimping, and
3,565,308 2/1971 Slack 225/97	thus the yield and variability as a filter, of the tow. The
3.566.735 3/1971 Greene	fibrillated tow is crimped while still hot from the heat-
3,577,724 5/1971 Greene 57/157	ing step. The resulting fibers have more uniform crimp-
3,579,618 5/1971 Stewart et al 264/DIG. 47	ing at higher levels than those not subject to heating.
3,582,418 6/1971 Schuur 264/DIG. 47	
3,595,454 7/1971 Kalwaites	19 Claims, 2 Drawing Sheets

